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FASTI ORNITHOLOGICÆ REDIVIVI.—NO. I. BARTRAM'S 'TRAVELS.'

BY ELLIOTT COUES.

"Come square me this by points of compass—apply the rule of three."

WILLIAM BARTRAM, naturalist, son of John Bartram, botanist, travelled extensively in the Carolinas, Georgia, and Florida, during the latter part of the XVIIIth century, and wrote and caused to be printed a book in which his journeys were traced, and his observations recorded. Which book is entitled as follows, to wit:

"Travels | through | North & South Carolina, | Georgia, | East & West Florida, | the Cherokee Country, the extensive | Territories of the Muscogulges, | or Creek Confederacy, and the | Country of the Chactaws; | containing | an account of the soil and natural | productions of those regions, toge- | ther with observations on the | manners of the Indians. | Embellished with copper-plates. | — | By William Bartram. | Philadelphia: | printed by James & Johnson, | M,DCC,XCI."—1 vol., 8vo., 1 p. l., pp. i-xxiv, 1-522, pll.

Another edition of which work was issued at Dublin, 1793, being a reprint, E. and O.E.; and further proof of the appreciation of the author's labors was given in the translation of the work into German, and its publication in that language at Berlin, in 1793, as the xth vol. of the *Magasin von merkwürdigen neuen Reisebeschreibungen*, &c.

Bartram was a naturalist, in the broadest and best sense of the term, whose acquirements in that line were fairly abreast of the times in which he lived, and whose example might be followed with profit if not with pleasure also. He was a traveller of the energy and perseverance that most successful explorers possess. He was a man of unimpeachable veracity, scrupulously exact in every circumstance of detail. He was a thoughtful critic of nature for the love of it; and that he was a judge of human nature is attested by his observations on the Indians: witness his graphic account of the way the Indian maidens (?) used to steal their lovers' rum, under pretence of taking a drink, to peddle it out to these untutored sons of the forest at a premium, when the supply ran low. To his other accomplishments he added that of humble devout Christianity, which was a frequent element in the contemplation of Nature, among thoughtful and sincere men, before she

had been much subjected to the scalpel and the microscope—those mighty props of the theory of evolution, which now threatens a revolution in revelation.

The work reflects the man; but upon its general merits, or those of its author, there is no excuse for dwelling. The point that chiefly concerns us at present is, that Bartram, being a naturalist, was necessarily part ornithologist. In point of fact, his love of birds, it is evident in his writings, was second only to that love of plants which was his by right of heritage from the botanist, his father; and, as another matter of fact, his book is discontinuously ornithological throughout.

The book would be called rare by no bibliographer, but neither is it very common now-a-days. It belongs to that large semi-scarce class, which every one interested in the subjects treated knows of, but which most persons quote, upon occasion, at second hand, until, grown wiser by experience in blundering, they feel the force of the scholar's maxim, "always verify quotations!"

The uncommonness, then, of the book has doubtless had some influence upon its author's rather depauperate ornithological laurels. Then again, some of his good seed (as we shall see in the sequel) fell where the fowls (one in particular that might be mentioned) came and ate it. Once more, and worst of all, there hangs about Bartram the unsavory suspicion of a dreadful crime—for the guilt of which some better ornithologists than Linnæus have been sent to unquotable Coventry—I mean polynomialism. So it falls out, that Bartram, *quâ* ornithologist, has not been appreciated.

But the count against him for nearly a century is not a true bill; the verdict must be, if not reversed, radically modified. In brushing some of the dust off the volume of travels, as far as ornithology is concerned, I shall take occasion to prove that according to the articles of nomenclatural war, the customs and precedents in such cases established, and the Rules of the British Association, Bartram has not received his due. That is to say, if we owe him anything, we have not paid him enough; if we owe him nothing, we have, nevertheless, given him some tribute. For we have let him doze by the hearth-stone of nomenclature, in his polynomial undress, and wakened him up occasionally when we wanted some little binomial favor, like *Vultur atratus*, or *Corvus floridanus* or *C. carnivorus*, for example. This is justice, neither to him nor ourselves. The greatest stickler of all for the conven-

tionalties of nomenclature will admit, that if any of Bartram's names are available, so are all of his identifiable binomials. No point is clearer than this; and equally indisputable are the following propositions:—

1. Bartram wrote subsequent to 1766.

2. He was effectually, systematically, and on principle binomial, occasionally lapsing. But if his exceptional slips are to count against him, then not a few great modern ornithologists must also be ruled out; among whom may be instanced Schlegel, Bonaparte, Sundevall, and others, in whose writings are found trinomial names, the three terms of which succeed each other consecutively without intervention of any kind of punctuation to bring about even a semblance of binomiality.

3. Several of Bartram's names are in current usage, unchallenged, and many others are among ordinary synonymatic quotations.

4. In 1791, Bartram published a *descriptive* catalogue of the, to him then known, Birds of the Eastern United States, 215 in number, in which list are introduced various species for the first time named binomially; some of which names are already in use, as just said, but more of which have been ignored, or only used in attribution to later writers, especially Wilson.

It is not expected to prove Bartram's availability to the satisfaction of everybody; but the fact that he must be either ruled out altogether, or fully accepted, is demonstrably indisputable. Upon this premise, we set ourselves to enquire into the nature of his claims upon our recognition.

At various pages of his work, Bartram describes, at length and with particularity, several species of birds, to which he applies names, such as *Vultur atratus*, *Meleagris americana*, and *Tantalus pictus*. These accounts leave no question open but that touching the author's method of nomenclature.

But the main ornithological interest of the work centres in the List Bartram gives. If Wilson was the father of American Ornithology, as he has been styled, Bartram, back to whom the pedigree of many names is traceable, was certainly the grandfather of that vigorous offspring. His statement of United States' birds is one of the earliest of those which are of any special account, and which treat exclusively of this subject, while its extent and general pertinence entitle the author to rank among the fathers. His

practical availability, however, for nomenclatural purposes, is another question, to be decided mainly upon our interpretation of his summary of 215 birds as "a mere list of names," or as a *bonâ fide* descriptive catalogue.

What is a description? It is any intelligibly indicative phrase. It may be extended to a treatise, or be comprised in a single word. Diagnosis is condensed description, to exclusion of non-essential particulars. Length of terms is obviously no criterion. Definition, diagnosis, description, are practically convertible terms. No one can fail to perceive that Bartram has treated every one of his species with description, diagnosis, or definition, and left no doubt of his meaning in the majority of cases. Even in the cases of his shortest definitions, it is only by shutting our eyes, with a tight squeeze too, that we can fail to perceive that names such as Bartram uses, are, like names in general, originally, the essence of description. And in any event the "mere name" theory can only be urged as an objection to a part of Bartram's species, some of them being described at length, to the letter as well as in the spirit of the law. No one can claim that, *e. g.*, Bartram's nos. 105, or 274, or 181, are not "described," or that they are precluded from recognition, because they occur in an article where some other species may not be described. Nor is there any essential difference between the mode of treatment of these species, and of no. 93 for instance, where Bartram says "*Fringilla fusca*, the large brown white throat sparrow." Nor, to take an extreme case, as no. 100, has any one any doubt what Bartram meant in saying "*Sturnus stercorarius*, the cowpen bird?"

For those who cling to the "mere name" theory, there is an argument in reserve. As Dr. Sclater has well observed, in treating of zoogeographical areas, the distribution of a species is as much one of its attributes, as any matter of form, size, or other physical property. Description, of course, may be based upon any quality that pertains to the object. Now Bartram prefaces his list with a set of formularized descriptions of geographical distribution, migration, or nidification, which he has caused to apply severally and individually to every one of his species,¹ by the use of certain perfectly well understood typography. The fact, therefore, is

¹ Excepting no. 161, where no asterisk appears, by evident oversight or typographical error.

established, that Bartram's birds are *described* as well as named. The accuracy and pertinence or the reverse, of his descriptions, is immaterial to the point at issue; his species are simply to be identified, upon the principles applied and by the means employed, in all other cases, by ornithological experts.

Bartram's method of nomenclature only remains for discussion; and in this matter much might be said *pro* and *con*. The gist of the case is, as already said, that he is systematically binomial on principle, with occasional lapses, which, however, do not invalidate his system any more than the similar deviations from strict binomiality in the above-mentioned cases of Schlegel or Bonaparte. It is not to the point to argue a difference in intent or meaning as *e.g.* between Bonaparte and Schlegel's *Loxia curvirostra rubrifasciata*, and Bartram's *Loxia rostro forficato*; for in either case the trinomial result is the same. In fact, in such cases, it may be replied with greater force, that through ignorance, oversight, or for other reason Bartram simply failed to give a name at all; his *Loxia rostro forficato*, for instance, being described, but not named. This point is at any rate as well taken as the objections to Bartram's binomiality can be. As to the form of his nomenclatural and diagnostic phrases, it may be observed, they are in close accord with the custom of the day. "Parus cedrus, uropygio flavo, the yellow rump" (no. 115) is thoroughly *en règle*, and to claim that "P. aureus vertice rubro, the yellow red pole" (no. 118) is any different, for want of the comma, would be to hang a man's reputation on a punctuation point—surely the disingenuous quibble of a pleader, in a great strait.

It is an evident corollary of what has gone before, that Bartram is entitled to unreserved recognition among ornithologists. Such of his species as are binomially named and fully identified must take their rightful place in the curriculum of synonymatic quotation; and those names which are found to possess the quality of priority must be adopted. Bartram's names are not simply literary curiosities, nor is their examination a mere matter of bibliomania. For the nomenclature of some fifteen or twenty of our commonest birds hangs upon the acceptance or rejection of this author. The case is submitted to the candid consideration of ornithologists.

In order to the most complete exposition of the case, and that ornithologists may the more readily be enabled to judge for themselves whether the present advocacy is in a good or bad cause,

Bartram's List is here reproduced, *verb. lit. punct.*, saving only omission of certain superfluous subheads of his, and insertion of numbers whereby cross-reference with the commentary which accompanies is facilitated. To ensure accuracy, the press-proofs are corrected from the original, not, as usual, from the MS. copy.

[Bartram's Descriptive Catalogue of the Birds of the Eastern United States. (Trav. N. & S. Car. &c., 1791,¹ pp. 288-296.²)]

[p. 288.]

BEING willing to contribute my mite towards illustrating the subject of the peregrination of the tribes of birds of N. America, I shall subjoin a nomenclature of the birds of passage, agreeable to my observation, when on my travels from New-England to New-Orleans, on the Mississippi, and point of Florida.

LAND birds which are seen in Pennsylvania, Maryland, Virginia, N. and S. Carolina, Georgia and Florida, from the sea coast Westward, to the Apalachian mountains, viz.

* THESE arrive in Pennsylvania in the spring season from the South, which after building nests, and rearing their young, return again southerly in the autumn.

[p. 289.]

† THESE arrive in Pennsylvania in the autumn, from the North, where they continue during the winter, and return again the spring following, I suppose to breed and rear their young; and these kinds continue their journies as far South as Carolina and Florida.

‡ THESE arrive in the spring in Carolina and Florida from the south, breed and rear their young, and return south again at the approach of winter, but never reach Pennsylvania or the Northern States.

|| THESE are natives of Carolina and Florida, where they breed and continue the year round.

¶ These breed and continue the year round in Pennsylvania.

¹ The Dublin edition, 1793, contains numerous mere typographical differences, for better or worse.

² The pagination of the work is erroneous, in just this place, the numbering of pp. 289, 290, being repeated, and p. 294 being numbered "492." Curious trap for unwary citators at second hand!

1. † *Strix arcticus*, capite levi corpore toto niveo, the great white owl.
2. ¶ *Strix pythaulus*, capite aurito, corpore rufo, the great horned owl.
3. † *Strix maximus*, capite aurito, corpore niveo, the great horned white owl.
4. ¶ *Strix acclamator*, capite levi, corpore grisco, the whooting owl.
5. † *Strix peregrinator*, capite aurito, corpore versicolore, the sharp winged owl.
6. ¶ *Strix assio*, capite aurito, corpore ferruginio, the little screech owl.
7. || *Vultur aura*, the turkey-buzzard.
8. || *Vultur sacra*, the white tailed vulture.
9. || *Vultur atratus*, black vulture, or carrion crow.

[p. 290.]

10. ¶ *Falco regalis*, the great grey eagle.
11. ¶ *F. leucocephalus*, the bald eagle.
12. * *F. piscatorius*, the fishing eagle.
13. ¶ *F. Aquilinus*, cauda ferrug. great eagle hawk.

Commentary on the foregoing List.

1. NYCTEA NIVEA.
2. BUBO VIRGINIANUS.
3. BUBO VIRGINIANUS var. ARCTICUS, Cassin, ex *Strix arctica*, Sw. & Rich., F. B. A. ii. 1831, 86, pl. 30. Bartram's name has priority for this white variety of the *B. virginianus*, but the term *maximus* would cause confusion with the European *Bubo*, besides being antedated in the genus.
4. SYRNIUM NEBULOSUM. — *Strix nebulosa*, Forst., Phil. Trans. lxii. 1772, 386, 424.
5. Undetermined;—one of the *Oti*, whether *wilsonianus* or *brachyotus* is uncertain.
6. SCOPS ASIO.
7. CATHARTES AURA.
8. Undetermined. This is Bartram's particular puzzle; it is elaborately, but not recognizably, described at p. 150. cf. especially Cass., B. Cal. and Tex. i. 1853, p. 59, and Allen, Bull. Mus. Comp. Zool. ii. 1871, pp. 313 et seqq.
9. CATHARTES ATRATUS (Bartr.)! The name has already been very generally adopted from Bartram, who fully describes the bird, with accuracy, at p. 152.
- 10, 11. HALIAETUS LEUCOCEPHALUS, juv. et ad. Description, p. 3.
12. PANDION HALIAETUS (*carolinensis* auct.). Description, p. 3.
13. BUTEO BOREALIS.

14. ¶ *F. gallinarius*, the hen hawk.
15. ¶ *F. pullarius*, the chicken hawk.
16. * *F. columbarius*, the pidgeon hawk.
17. ¶ *F. niger*, the black hawk.
18. * *F. ranivorus*, the marsh hawk.
19. * *F. sparverius*, the least hawk or sparrow hawk.
- (a)
20. || *Falco furcatus*, the forked tail hawk, or kite.
21. || *F. glaucus*, the sharp winged hawk, of a pale sky-blue colour, the tip of the wings black.
22. || *F. subcerulius*, the sharp winged hawk, of a dark or dusky blue colour.
23. || *Psitticus Caroliniensis*, the parrot of Carolina, or parakeet.

14, 15. Neither determinable. May be young of No. 13, or some other *Buteo*, or *Accipiter cooperi*.

16. *FALCO COLUMBARIUS*.

17. *ARCHIBUTEO SANCTIOHANNIS*. (*A. lagopus*, auct. Amer.)

18. *CIRCUS HUDSONIUS*.

19. *FALCO SPARVERIUS*.

20. *ELANOIDES FORFICATUS*; *F. furcatus*, Linn., 1766; *F. forficatus*, Linn., 1758; *Nauclerus furcatus*, Vig.; *Nauclerus forficatus*, Ridgw., 1874.

21. *ELANUS GLAUCUS* (Bartr.)! The description, the ascribed habitat, together with the note of form and habit respecting this species and Nos. 20, 22, and their allocation together under *Milvus*, leave no doubt whatever of Bartram's meaning. This then is the bird commonly known as *Elanus leucurus*, after Temminck, over which name *glaucus* has tenable priority.

22. *ICTINIA SUBCÆRULEA* (Bartr.)! The same complete identification obtains in this case as in that of No. 21. The nomenclature is strictly binomial, the description accurate as far as it goes, the habitat correctly given, and the additional evidence irrefragable. The bird is that subsequently described by Wilson as *Fulco mississippiensis*, and commonly known as *Ictinia mississippiensis*, which specific name must give way to Bartram's.

23. *CONURUS CAROLINENSIS*. Further account, p. 301.

[(a) Bartram ranges the next three species under a separate subhead, "Milvus. Kite Hawk." And says in a footnote: "Kite Hawks. These are characterised by having long sharp pointed wings, being of swift flight, sailing without flapping their wings, lean light bodies, and feeding out of their claws on the wing, as they gently sail round and round"—a very good diagnosis of a milvine bird.]

- 24. * *Corvus carnovorus*, the raven.
- 25. || *C. maritimus*, the great sea-side crow, or rook.
- 26. ¶ *C. frugivorus*, the common crow.
- 27. ¶ *C. cristatus*, s. *pica glandaria*, the blue jay.
- 28. ¶ *C. Floridanus*, *pica glandaria minor*, the little jay of Florida.
- 29. ¶ *Gracula quiscula*, the purple jackdaw of the sea coast.

[p. 289 *bis*.]

- 30. * *Gracula purpurea*, the lesser purple jackdaw, or crow black-bird.
- 31. * *Cuculus Caroliniensis*, the cuckoo of Carolina.

24. *CORVUS CARNIVORUS*, Bartr. ! This name was adopted for the American raven in 1858, by Prof. Baird, whose example has been followed, without question or hesitation, by all subsequent American writers who separate it from *C. corax*. Yet it is a bare name, unaccompanied by even the semblance of a description, excepting that implied in the use of the asterisk.

25. *CORVUS MARITIMUS*, Bartr. !—*C. ossifragus*, Wils. This is evidently the fish crow, although it must be conceded that the expression 'great' is inapplicable. In marking it ||, Bartram correctly indicates the restriction of its habitat in comparison with that of the Raven or of the Common Crow.

26. *CORVUS FRUGIVORUS*, Bartr. !—*C. americanus*, Aud. Here is a case exactly parallel with that of No. 24. "*C. carnovorus*, the raven;" "*C. frugivorus*, the common crow." To be consistent, authors must either cease to say *Corvus carnovorus*, or else say *Corvus frugivorus* too. Consistency is a jewel. The simple fact is appearing in stronger light as we proceed, that we must either take Bartram *en bloc*, or give him up altogether.

27. *CYANURUS CRISTATUS*.

28. *CYANOCITTA FLORIDANA* (Bartr.) ! Name already in universal employ.

29. *QUISCALUS MAJOR*, Vieill.—The expression "purple jackdaw of the seacoast" is perfectly diagnostic, the species being thoroughly maritime, and always called jackdaw in the countries it inhabits. To those to whom such alliterative names as *Sialia sialis*, *Cupidonia cupido*, &c., are unobjectionable, I suggest the propriety of calling this species, *Quiscalus quiscula* (Bartr.) !

30. *QUISCALUS PURPUREUS* (Bartr.) !—*Q. versicolor*, Vieill. Bartram's name has been frequently employed, though of late, for a time, generally superseded by Vieillot's of subsequent date, until restored by Mr. Cassin.

31. *COCCYZUS AMERICANUS*. There is really nothing to show which species Bartram meant by this name, but this is obviously the origin of Wilson's name, for the yellow-billed Cuckoo.

32. || *Picus principalis*, the greatest crested woodpecker, having a white back.
33. * *P. pileatus*, the great red crested black woodpecker.
34. * *P. erythrocephalus*, red headed woodpecker.
35. * *P. auratus*, the gold winged woodpecker.
36. ¶ *P. Carolinus*, the red bellied woodpecker.
37. ¶ *P. pubescens*, the least spotted woodpecker.
38. ¶ *P. villosus*, the hairy, speckled and crested woodpecker.
39. ¶ *P. varius*, yellow bellied woodpecker.
40. ¶ *Sitta Europea*, gray black capped nuthatch.
41. † *Sitta varia*, ventre rubro, the black capped, red bellied nuthatch.
42. † *Certhia rufa*, little brown variegated creeper.
43. * *C. pinus*, the pine creeper.
44. * *C. picta*, blue and white striped or pied creeper.
45. * *Alcedo alcyon*, the great crested king-fisher.
46. * *Trochilus colubris*, the humming bird.
47. * *Lanius griscus*, the little grey butcher-bird of Pennsylvania.
48. * *L. garrulus*, the little black capped butcher-bird of Florida.

32. *CAMPEPHILUS PRINCIPALIS*.

33. *HYLOTOMUS PILEATUS*.

34. *MELANERPESERYTHROCEPHALUS*.

35. *COLAPTES AURATUS*.

36. *CENTURUS CAROLINUS*.

37. *PICUS PUBESCENS*.

38. *PICUS VILLOSUS*.

39. *SPHYROPICUS VARIUS*.

40. *SITTA CAROLINENSIS*.

41. *SITTA CANADENSIS*. Here is obviously the origin of Wilson's term, *S. varia*.

42. *CERTHIA RUFA* (Bartr.)! Nomenclature binomial, and description diagnostic; the name should stand with those who separate the bird from the European.

43. *DENDRÆCA PINUS* (Bartr.)! The name is universally attributed to Wilson, but we here see its original source.

44. *MNIOTILTA VARIA*. "Blue and white" is an evident slip for "black and white." Here and in other cases it is evident that Bartram drew up his list from memory.

45. *CERYLE ALCYON*.

46. *TROCHILUS COLUBRIS*.

47. *COLLURIO BOREALIS*?

48. *COLLURIO LUDOVICIANUS*.

Bartram has all his Woodpeckers right, under prior and tenable names; and his list includes every one of the Eastern United States, excepting *P. querulus*. No. 32, for "white back" read "white beak."

- 49. * *L. tyrannus*, the king bird.
- 50. * *Muscitapa nunciola*, the pewit, or black cap flycatcher.
- 51. * *M. cristata*, the great crested yellow bellied flycatcher.
- 52. * *M. rapax*, the lesser pewit, or brown and greenish flycatcher.
- 53. * *M. subviridis*, the little olive cold. flycatcher.

[p. 290 *bis*.]

- 54. * *Muscicapa cantatrix*, the little domestic flycatcher or green wren.
- 55. * *M. sylvicola*, the little red eye'd flycatcher.
- 56. * *Columba Caroliniensis*, the turtle dove.
- 57. || *C. passerina*, the ground dove.
- 58. † *C. migratoria*, the pigeon of passage or wild pigeon.
- 59. * *Alauda magna*, the great meadow lark.
- 60. † *A. campestris*, gutture flavo, the sky lark.
- 61. † *A. migratoria*, corpore toto ferrugineo, the little brown lark.
- 62. ¶ *Turdus migratorius*, the fieldfare or robin redbreast.
- 63. * *T. rufus*, the great, or fox coloured thrush.
- 64. * *T. polyglottos*, the mocking bird.

49. TYRANNUS CAROLINENSIS.

50. SAYORNIS FUSCUS. *Muscicapa nunciola* is Bartram's, not, originally, Wilson's.

51. MYIARCHUS CRINITUS.

52. CONTOPUS VIRENS. *Muscicapa rapax* is Bartramian, not originally Wilsonian.

53. EMPIDONAX ACADICUS. *M. subviridis*, Bartr., is quoted in Jardine's edition of Wilson for the *M. acadicus* of authors, doubtless correctly, because it is the only *Empidonax* known to breed in Pennsylvania, as indicated by Bartram.

54. VIREO NOVEBORACENSIS. *Cantatrix*, Bartr., *olim*; Wils., *nuper*.

55. VIREO OLIVACEUS. Wilson transferred the name *M. sylvicola* to *V. flavifrons*, Vieill.

56. ZENAIDURA CAROLINENSIS.

57. CHAMÆPELIA PASSERINA.

58. ECTOPISTES MIGRATORIA. Full account, p. 469.

59. STURNELLA MAGNA.

60. EREMOPHILA ALPESTRIS.

61. ANTHUS LUDOVICIANUS.

62. TURDUS MIGRATORIUS.

63. HARPORHYNCHUS RUFUS.

64. MIMUS POLYGLOTTUS.

65. * *T. melodes*, the wood thrush.
66. * *T. minimus*, vertice aurio, the least golden crown thrush.
67. * *Oriolus Baltimore*, Baltimore bird or hang nest.
68. * *O. spurius*, the goldfinch or *icterus minor*.
69. * *Merula flammula*, sand-hill redbird of Carolina.
70. * *M. Marilandica*, the summer red bird.
71. * *Garrulus australis*, the yellow breasted chat.
72. * *Lucar lividus*, apice nigra, the cat bird, or chicken bird.
73. ¶ *Ampelis garrulus*, crown bird, or cedar bird.
74. ¶ *Meleagris Americanus*, the wild turkey.
75. ¶ *Tetrao lagopus*, the mountain cock, or grouse.

65. *TURDUS MUSTELINUS*. Another case of Bartramian origin of an ascribed Wilsonianism.

66. *SEIURUS AURICAPILLUS*.

67. *ICTERUS BALTIMORE*.

68. *ICTERUS SPURIUS*.

69. Not recognized. (*Pyranga rubra*?)

70. *PYRANGA ÆSTIVA*.

71. *ICTERIA VIRENS* (L., 1758).—*I. viridis*, Auct. See p. 302, for further account, where the bird is called *Motacilla trochilus*.

72. *LUCAR CAROLINENSIS*! That the diagnostic expression "apice nigra," is a slip for "vertice nigra" is seen on reference to p. 299, where further account of the cat bird is given. Bartram's specific name, commonly ascribed to Wilson, is antedated by the Linnæan; but his curious generic term is not so easily disposed of. It is exactly coëqual with the subsequent *Felivox* of Bonaparte, and *Galeoscoptes* of Cabanis; and, for those who place the cat-bird in the same genus with the mocking-birds, will be considered also equivalent to *Mimus*, Boie. What is to be done in this case? The name is probably meaningless, and in fact, looks like a misprint; but if all barbarous and meaningless names are to be excluded on these scores, the revolution in nomenclature would be very great. "*Lucar*" is no worse than "*Jotha*," which some years since occasioned the issue between Prof. E. Forbes and Dr. J. E. Gray. *Lucar* is a very nice point as it stands, and as such is commended to the consideration of ornithologists.

73. *AMPELIS CEDRORUM*. Full account, p. 298.

74. *MELEAGRIS AMERICANA* Bartr.! The wild turkey is fully described at pp. 14, 83, at the latter under the name of *M. occidentalis*. Bartram's name is among the current quotations, and I recently adopted it, subspecifically, as the designation of the Eastern United States form, as distinguished from the Mexican, or true *M. gallopavo*, Linn.

75. Undetermined. No *Lagopus* nor true *Tetrao* inhabits Pennsylvania. Can Bartram have intended the *Cupidonia*, which formerly ranged eastward?

76. ¶ *T. tympanus*, the pheasant of Pennsylvania.
 77. ¶ *T. minor*, s. *coturnix*, the quail or partridge.
 78. ¶ *Loxia cardinalis*, the red bird, or Virginia nightingale.
 79. † *L. rostro forficato*, the cross beak.
 80. * *L. cerulea*, the blue cross beak.

[p. 291.]

81. * *Emberiza oryzivora*, (1) the rice bird.*
 82. † *E. livida*, the blue or slate coloured rice bird.
 83. * *E. varia*, (2) the pied rice bird.
 84. † *Linaria ciris*, the painted finch, or nonpareil.
 85. * *L. cyanea*, the blue linnet.
 86. ¶ *Carduelus Americanus*, the goldfinch.
 87. † *C. pinus*, the lesser goldfinch.
 88. † *C. pusilus*, the least finch.
 89. * *Fringilla erythrophthalma*, the towhee bird.
 90. † *F. purpurea*, the purple finch.
 91. † *F. canabina*, the hemp bird.
 92. † *F. rufa*, the red, or fox-coloured ground or hedge sparrow.

* (1 2) Are generally supposed to be male and female of the same species (2) or the pied rice bird the male, and (1) or the yellow, the female.

76. *BONASA UMBELLUS*.
 77. *ORTYX VIRGINIANA*.
 78. *CARDINALIS VIRGINIANUS*.
 79. *LOXIA AMERICANA*.
 80. *GUIRACA CAERULEA*.
 81. *DOLICHONYX ORYZIVORA*, ♀.
 82. Undetermined; nor is it evident why this is interpolated between the two sexes of *Dolichonyx*.
 83. *DOLICHONYX ORYZIVORA*, ♂. Extended account given, pp. 296-298.
 84. *CYANOSPIZA CIRIS*. Further account, p. 299.
 85. *CYANOSPIZA CYANEA*. Further account at p. 299.
 86. *CHRYSOMITRIS TRISTIS*.
 87. *CHRYSOMITRIS PINUS* (Bartr.)! Name commonly ascribed to Wilson.
 88. Undetermined. (*Ægiothus linaria*?)
 89. *PIPILO ERYTHROPHthalmus*.
 90. *CARPODACUS PURPUREUS*.
 91. Undetermined.
 92. *PASSERELLA ILIACA*.

93. † *F. fusca*, the large brown white throat sparrow
94. * *Passer domesticus*, the little house sparrow or chipping bird.
95. * *P. palustris*, the reed sparrow.
96. * *P. agrestis*, the little field sparrow.
97. † *P. nivalis*, the snow bird.
98. * *Calandra pratensis*, the May bird.
99. * *Steruus predatorius*, the red winged sterling, or corn thief.
100. * *S. stercorarius*, the cowpen bird.
101. * *Motacilla sialis*, the blue bird. (*Rebicula Americana*, Cat.)
102. * *M. fluviatilis*, the water wagtail.
103. * *M. domestica* (*regulus rufus*) the house wren.
104. ¶ * *M. palustris*, (*reg. minor*) the marsh wren.
105. * *M. Caroliniana*, (*reg. magnus*) the great wren of Carolina,
the body of a dark brown, the throat and breast of a pale
clay colour.
106. * *Regulus griceus*, the little bluish grey wren.
107. † *R. cristatus*, the golden crown wren.

93. ZONOTRICHIA ALBICOLLIS.

94. SPIZELLA DOMESTICA (Bartr.)!—*S. socialis*, Auct. In his Obs. Wils., Bp. speaks of *Fringilla domestica*, Bart., as the *S. socialis*, but does not adopt it, simply because he referred the bird to *Fringilla*, in which genus there was already a Linnæan *domestica*.

95. MELOSPIZA PALUSTRIS (Bartr.)! The name is commonly attributed to Wilson.

96. SPIZELLA AGRESTIS (Bartr.)!—*S. pusilla*, Auct. The name has already been mentioned in this connection by Bonaparte.

97. JUNCO HYEMALIS. The same term, *nivalis*, is used by Wilson.

98. Undetermined.

99. AGELEUS PHENICEUS. Evidently the origin of Wilson's *Sturnus predatorius*.

100. MOLOTHRUS ATER (Bodd.).—*M. pecoris*, Gm., Auct. So far as I know, Bartram is alone in the use of the specific name *stercorarius*.

101. SIALIA SIALIS (L.).

102. SEIURUS NOVEBORACENSIS.

103. TROGLODYTES DOMESTICA (Bartr.)!—*Trog. ædon*, Vieill., Auct. Wilson took his name from Bartram, and Bonaparte recognizes its source.

104. CISTOTHORUS PALUSTRIS (Bartr.)! The name is currently ascribed to Wilson.

105. THRYOTHORUS LUDOVICIANUS.

106. POLIOPTILA CÆRULEA.

107. REGULUS SATRAPA.

[p. 292.]

108. † *R. cristatus* alter vertice rubini coloris, the ruby crown wren. (G. Edwards.)
109. * *R. peregrinus*, gutture flavo, the olive coloured yellow throated wren.
110. * *Ruticilla Americana*, the redstart.
111. * *Luscinia*, s. *philomela Americana*, the yellow hooded titmouse.
112. * *Parus cristatus*, bluish grey crested titmouse.
113. ¶ *P. Europeus*, the black cap titmouse.
114. * *P. luteus*, the summer yellow bird.
115. * *P. cedrus*, uropygio flavo, the yellow rump.
116. * *P. varius*, various coloured little finch creeper.
117. * *P. peregrinus*, little chocolate breast titmouse.
118. * *P. aureus* vertice rubro, the yellow red pole.
119. * *P. aurio* vertice, the golden crown flycatcher.
120. * *P. viridis* gutture nigro, the green black throated flycatcher.
121. * *P. alis aureis*, the golden winged flycatcher.
122. * *P. aureus* alis ceruleis, the blue winged yellow bird.
123. * *P. griceus* gutture luteo, the yellow throated creeper.
124. * *Hirundo pelagica*, cauda aculeata, the house swallow.
125. * *H. purpurea*, the great purple martin.

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108. *REGULUS CALENDULA*. (Not binomially named.)
 109. *GEOTHELYPIS TRICHAS*.
 110. *SETOPHAGA RUTICILLA*.
 111. Undetermined, and not binomially named.
 112. *LOPHOPHANES BICOLOR*.
 113. *PARUS ATRICAPILLUS*.
 114. *DENDRÆCA ÆSTIVA*.
 115. Undetermined. If meant for *Dendræca coronata*, the asterisk is misplaced.
 116. *PARULA AMERICANA*.
 117. Undetermined. (*Dendræca castanea*?)
 118. *DENDRÆCA PALMARUM*.
 119. Undetermined. (*Dendræca coronata*?)
 120. *DENDRÆCA VIRENS*.
 121. *HELMINTHOPHAGA CHRYSOPTERA*, but not binomially named.
 122. *HELMINTHOPHAGA PINUS*.
 123. *DENDRÆCA DOMINICA*.
 124. *CHÆTURA PELAGICA* (Linn. 1758).
 125. *PROGNE PURPUREA*.

- 126. * *H. riparia vertice purpurea*, the bank martin.
- 127. * *H. cerdo*, the chimney swallow.
- 128. ‡ *Caprimugus lucifugus*, the great bat, or chuck wills widow.
- 129. * *C. Americanus*, the night hawk or whip poor will.
- 130. || *Grus clamator*, vertice papilloso, corpore niveo remigibus nigris, the great whooping crane.

[p. 293.]

- 131. † *G. pratensis*, corpore cinereo, vertice papilloso, the great savanna crane.
- 132. ¶ *Ardea herodias*, the great bluish grey crested heron.
- 133. * *A. immaculata*, the great white river heron.
- 134. * *A. alba minor*, the little white heron.
- 135. ‡ *A. purpurea cristata*, the little crested purple or blue heron.
- 136. * *A. varra cristata*, the grey white crested heron.
- 137. ‡ *A. maculata cristata*, the speckled crested heron, or crab-catcher.
- 138. * *A. mugitans*, the marsh bitern, or Indian hen.
- 139. * *A. clamator*, corpore subceruleo, the quaw bird, or frog-catcher.
- 140. ‡ *A. subfusca stillata*, the little brownish spotted bitern.

126. *COTYLE RIPARIA*.

127. *CHÆTURA PELAGICA bis*.

128. *ANTROSTOMUS CAROLINENSIS*. Called *C. rufus* at p. 154, where distinguished from the whippoorwill.

129. *ANTROSTOMUS VOCIFERUS*, plus *CHORDEILES POPETUE*, these two species being confounded by Bartram, as by his predecessors. In using the term *americana*, Wilson afterwards restricted it to the *Chordeiles*.

130. *GRUS AMERICANA*.

131. *GRUS CANADENSIS*. Bartram's names for the two cranes are among their current synonyms; the birds are well described, as at pp. 201, 220.

132. *ARDEA HERODIAS*.

133. *HERODIAS EGRETTE*.

134. *GARZETTA CANDIDISSIMA*. Not binomially named.

135. *FLORIDA CÆRULEA*. Not binomially named.

136. Undetermined, and not binomially named.

137. Undetermined, and not binomially named.

138. *BOTAURUS MUGITANS* (Bartr.)!—*B. lentiginosa*, Mont. An *Ardea stellaris* var. minor, Gm., has been quoted by some for this bird, but no such term occurs in Gmelin, who gives the American bird as *β*. *Botaurus freti hudsoni*, after Brisson (p. 636).

139. *NYCTIARDEA GRISEA* (Bodd.).—*N. gardeni*, Auct.

140. Undetermined, and not binomially named.

- 141. ‡ *A. violacca*, the crested blue bitern, (called poor Jobe.)
- 142. * *A. viriscens*, the green bitern or poke.
- 143. * *A. viriscens minor*, the lesser green bitern.
- 144. * *A. parva*, the least brown and striped bitern.
- 145. * *Platalea ajaja*, the spoonbill, seen as far North as Alata-maha river in Georgia. [*a*]
- 146. ‡ *Tantalus loculator*, the wood pelicane.
- 147. ‡ *T. alber*, the white Spanish curlew.
- 148. ‡ *T. fuscus*, the dusky and white Spanish curlew.
- 149. || *T. pictus*, (Ephouskyka Indian) the crying bird, beautifully speckled.
- 150. || *T. Ichthyophagus*, the gannet, perhaps little different from the Ibis.
- 151. || *Numenius, alba varia*, the white godwit.
- 152. ¶ *N. pectore rufo*, the great red breasted godwit

[p. 294, wrongly marked "492."]

- 153. ¶ *N. Americana*, the greater godwit.
- 154. ¶ *N. fluvialis*, the red shank or pool snipe.
- 155. ¶ *N. magnus rufus*, the great sea coast curlew.

141. NYCTIARDEA VIOLACEA.

142. BUTORIDES VIRESCENS.

143. BUTORIDES VIRESCENS, *bis*.

144. ARDETTA EXILIS.

145. PLATALEA AJAJA.

146. TANTALUS LOCULATOR. Full description at p. 149.

147. IBIS ALBA. Full description at p. 148.

148. IBIS ALBA, juv. Full description at p. 148.

149. ARAMUS PICTUS (Bartr.)!—*A. giganteus* (Bp.). The bird is minutely and accurately described at p. 147. There is no question of this bird, and the nomenclature is exclusively binomial. It is the "Ephouskyka" or "Ephouskyka," said to be the Indian term for "crying bird."

150. TANTALUS LOCULATOR, *bis*. See what Audubon says about the Wood Ibis being called "gannet" in Florida.

151. Undetermined. (*Recurvirostra americana*?)

152. Undetermined.

153. Undetermined.

154. Undetermined. (*Totanus melanoleucus* or *flavipes*?)

155. Undetermined. (*Numenius longirostris*?)

[*a*] Hence the asterisk is wrongly affixed; it should be ‡.

156. * *N. minor campestris*, the lesser field curlew.
157. ¶ *N. cinereus*, the sea side lesser curlew.
158. * *Scolopax Americana rufa*, great red woodcock.
159. * *S. minor arvensis*, the meadow snipe.
160. * *Tringa rufa*, the red cootfooted tring.
161. *T. cinerea*, gutture albo, the white throated cootfooted tringa.
162. * *T. vertice nigro*, black cap cootfooted tringa.
163. ¶ *T. maculata*, the spotted tringa.
164. ¶ *T. griseus*, the little pond snipe.
165. ¶ *T. fusca*, the little brown or ash coloured pool snipe.
166. ¶ *T. parva*, the little trings of the sea shore, called sand birds.
167. * *Morinella Americana*, the turnstone or dottrill.
168. † *Cygnus ferus*, the wild swan.
169. † *Anser Canadensis*, the Canadian goose.
170. † *A. aliis ceruliis*, the blue winged goose.
171. † *A. fuscus maculatus*, the laughing goose.
172. † *A. branta*, corpore albo, remigibus nigris, the white brant goose.
173. † *A. branta grisca maculata*, the great particoloured brant, or grey goose.

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156. Undetermined.
 157. Undetermined. (*Totanus semipalmatus?*)
 158. PHILOHELA MINOR. (Not binomially named.)
 159. Undetermined.
 160. Undetermined. (Certainly no Phalarope.)
 161. Undetermined. (Not a Phalarope.)
 162. Undetermined. (Not a Phalarope.)
 163. TRINGOIDES MACULARIUS.
 164. Undetermined.
 165. Undetermined.
 166. EREUNETES PUSILLUS *plus* TRINGA MINUTILLA.
 167. STREPSILAS INTERPRES. Breeding in Penna. ! I guess not.
 168. CYGNUS AMERICANUS.
 169. BRANTA CANADENSIS.
 170. ANSER CÆRULESCENS, Linn. Bartram was wiser here than some of his successors have been.
 171. ANSER GAMBELI.
 172. CHEN HYPERBOREUS.
 173. BRANTA BERNICLA.

174. † *Anas fera torquata* major, caput et collum viridi splendentis, dorsum grisco fuscum, pectore rufescente speculum violacrum, the great wild duck, called duck and mallard.
 175. † *A. nigra maxima*, the great black duck.
 176. † *A. bucephala*, the bull-neck and buffaloe head.
 177. † *A. subcerulea*, the blue bill.
 178. † *A. leucocephala*, the black white faced duck.
 179. † *A. caudacuta*, the sprig tail duck.
 180. † *A. rustica*, the little brown and white duck.

[p. 295.]

181. † *A. principalis*, maculata, the various coloured duck, his neck and breast as tho' ornamented with chains of beads.
 182. † *A. minor picta*, the little black and white duck called butterback.
 183. * *Anas sponsa*, the summer duck.
 184. † *A. discors*, the blue winged teal.
 185. † *A. migratoria*, the least green winged teal.
 186. * *A. fistulosa*, whistling duck.
 187. † *Mergus major* pectore rufo, great fishing duck
 188. † *M. cucullatus*, the round crested duck.
 189. * *Colymbus migratorius*, the eel crow.
 190. ‖ *C. Floridanus*, the great black cormorant of Florida, having a red beak.

174. *ANAS BOSCHAS*.

175. *ANAS OBSCURA* ? or *OEDEMA* ?

176. *BUCEPHALA CLAUGULA*.—*B. americana*, Bd.

177. *FULIGULA MARILA* ? or *F. AFFINIS* ?

178. *FULIGULA MARILA* ♀ ? or *F. AFFINIS* ♀ ?

179. *DAFILA ACUTA*.

180. *BUCEPHALA ALBEOLA* ♀.

181. Undetermined. (*Chaulelasmus* ?)

182. *BUCEPHALA ALBEOLA* ♂.

183. *AIX SPONSA*.

184. *QUERQUEDULA DISCORS*.

185. *QUERQUEDULA CAROLINENSIS*.

186. Undetermined.

187. *MERGUS SERRATOR*.

188. *MERGUS CUCULLATUS*.

189. Undetermined.

190. *GRACULUS FLORIDANUS* (Bartr.) ! Same as the species of Audubon, who applied the same name independently. "Red beak" is evidently a confusion in memory, red gular pouch and lores being meant.

191. || *C. colubrinus*, cauda elongata, the snake bird of Florida.
192. ¶ *C. musicus*, the great black and white pied diver or loon.
193. † *Colymbus arcticus*, the great speckled diver.
194. ¶ *C. auritus-et cornutus*, the little eared brown dobekick.
195. ¶ *C. minor fuscus*, the little crested brown dobekick.
196. ‡ *Phaeaton aethereus*, the tropic bird.
197. ¶ *Larus alber*, the great white gull.
198. ¶ *L. griceus*, the great grey gull.
199. ¶ *L. alba minor*, the little white river gull.
200. || *Onocralus Americanus*, the American sea pelicane.
201. || *Petrella pintada*, the pintado bird.
202. ¶ *Rhynchops niger*, the shearwater or razor bill.
203. ‡ *Pelicanus aquilus*, the frigate or man of war bird.
204. ‡ *P. sula*, the booby.
205. ‡ *Sterna stolidus*, the sea swallow, or noddy.

[p. 296.]

206. * *Charadrius vociferus*, the killdeer or chattering plover.
207. * *C. maculatus*, the great field spotted plover.
208. * *C. minor*, the little sea side ring necked plover.
209. * *Hematopus ostrealegus*, the will willet or oyster catcher.

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191. *PLUTUS ANHINGA*. Described very fully at p. 132.
 192. *COLYMBUS* ———?
 193. *COLYMBUS* ———?
 194. *PODICEPS CORNUTUS*.
 195. *PODICEPS* ———?
 196. *PHAETHON AETHEREUS*?
 197. *LARUS ARGENTATUS*?
 198. *LARUS ARGENTATUS* juv.?
 199. *CHROCOCEPHALUS* ———? *STERNA* ———?
 200. *PELECANUS* ———? There is nothing to show which species is meant. The name is the same as that Audubon subsequently gave to the white pelican.
 201. *PROCELLARIA* ———?
 202. *RHYNCHOPS NIGRA*.
 203. *TACHYPETES AQUILUS*.
 204. *SULA FIBER*.
 205. *ANOUS STOLIDUS*.
 206. *ÆGIALITIS VOCIFERA*.
 207. *CHARADRIUS VIRGINICUS* or *SQUATAROLA HELVETICA*.
 208. *ÆGIALITIS SEMIPALMATA* or *Æg. MELODA*.
 209. *HÆMATOPUS PALLIATUS*.

210. || *Fulica Floridana*, the great blue or slate coloured coot of Florida.
 211. * *Rallus Virginianus*, the soree bird or little brown rail, also called widgeon in Pennsylv.
 212. ‡ *R. aquaticus minor*, the little dark blue water rail.
 213. * *R. rufus Americanus*, the greater brown rail.
 214. || *R. major subceruleus*, the blue or slate coloured water rail of Florida.
 215. * *Phoenicopterus ruber*, the flamingo, seen about the point of Florida, rarely as far N. as St. Augustine. [a]

210. *FULICA AMERICANA*.

211. *RALLUS VIRGINIANUS* OF PORZANA CAROLINA.

212. *PORZANA CAROLINA* adult?

213. *RALLUS LONGIROSTRIS* OR *R. ELEGANS*.

214. *GALLINULA GALEATA*? OR *PORPHYRIO MARTINICA*?

215. *PHOENICOPTERUS RUBER*.

SUMMARY.—Total, 215 species, of which 52 are undetermined in the foregoing commentary. Of the 163 recognized species, many are here given new specific names, the binomial ones of which are to be adopted if found to have priority, otherwise to be entered among current quotations of synonyms. Of the many new binomial and identified names, 20 are believed to have priority. Of these 20, 5 are already in general employ, on Bartram's authority; namely, Nos. 9, 24, 28, 30, 74; and 5 others are in general employ, but attributed to Wilson or Audubon; namely, Nos. 43, 87, 95, 104, 190. This leaves 10 new, identified, binomial names, believed to have priority, and consequently available for use, to supersede later names now in current usage, namely, Nos. 21, 22, 25, 26, 42, 94, 96, 103, 138, 149. Attention is called to the whole of these 20 names, printed in large capitals in the foregoing commentary—but particularly to the 10 last enumerated; likewise, to *Lucar*.

[a. Whence the asterisk is evidently misplaced.]